

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karmaker et al (6827576) in view of Kobayashi et al (5759029). Karmaker shows a dental component 10 having a darker fiber 52, Fig. 12, covered by a lighter fiber 54, where the dark fiber 52 can be carbon fibers which are black or brown and are covered by additional fibers 54 which can be white, column 3, lines 46-60. It is noted that Karmaker does not specifically state that 52 comprises carbon fiber, however, Karmaker teaches that 52 is of a darker color, that it is covered by a lighter color, for example white, and that carbon fiber can be used and exhibits a darker color, black or brown. One of ordinary skill in the art would understand and find obvious to use the darker carbon fiber for element 52. Karmaker also shows the fibers being held in a hardenable substance, a polymeric matrix, column 4, lines 19-25. Karmaker teaches that the fibers used can be colored with pigment so that a single fiber can be used, however, Karmaker also teaches that fibers 54 can be transparent, column 3, lines 50-55, and this combined with the suggestion of using darker carbon fibers in the center 52, suggests to one of ordinary skill in the art the use of at least two different type of fibers because carbon fiber cannot be made transparent. In view of this, it is held that Karmaker at least obviously suggests to one of ordinary skill in the art, the alternative of using different types of fibers to obtain the desired

Art Unit: 3732

coloring. Karmaker teaches that the fibers that can be used include glass fibers, column 6, lines 5-8, however, Karmaker does not show using aluminum oxide fibers. Kobayashi teaches that it is known in the dental arts that glass fibers and alumina fibers are equivalent reinforcing agents that can have a white color, column 1, lines 50-54. It would be obvious to one of ordinary skill in the art to modify Karmaker to include the use of alumina fibers in order to make use of art known reinforcing fibers that can have the desired color. As to claim 7, Karmaker teaches using a lighter color, the specific color used would have been obvious to the skilled artisan in order to improve aesthetics. As to claim 8, to match moisture absorbency would have been obvious to one of ordinary skill in the art in order to resist the oral environment. As to claim 9, the relative thickness of the additional fiber material with respect to the component is an obvious matter of choice in the size of a known element to the skilled artisan.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karmaker et al (6827576) in view of Kobayashi et al (5759029) as applied above, and further in view of Bachmann et al (6224377). Karmaker further teaches using polyaramid fibers, however, does not state that the polyaramid fibers are para-aramid fibers. Bachmann teaches that para-aramid (Kevlar) fibers are equivalent reinforcing fibers used for a dental post. It would be further obvious to modify the above combination to include para-aramid fibers as taught by Bachmann in order to better reinforce the post.

Claims 12-14 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karmaker et al (6827576) in view of Bachmann et al (6224377). Karmaker shows a dental

Art Unit: 3732

component 10 having a darker fiber 52, Fig. 12, covered by a lighter fiber 54, where the dark fiber 52 can be carbon fibers which are black or brown and are covered by additional fibers 54 which can be white, column 3, lines 46-60. It is noted that Karmaker does not specifically state that 52 comprises carbon fiber, however, Karmaker teaches that 52 is of a darker color, that it is covered by a lighter color, for example white, and that carbon fiber can be used and exhibits a darker color, black or brown. One of ordinary skill in the art would understand and find obvious to use the darker carbon fiber for element 52. Karmaker also shows the fibers being held in a hardenable substance, a polymeric matrix, column 4, lines 19-25. Karmaker teaches that the fibers used can be colored with pigment so that a single fiber can be used, however, Karmaker also teaches that fibers 54 can be transparent, column 3, lines 50-55, and this combined with the suggestion of using darker carbon fibers in the center 52, suggests to one of ordinary skill in the art the use of at least two different type of fibers because carbon fiber cannot be made transparent. In view of this, it is held that Karmaker at least obviously suggests to one of ordinary skill in the art, the alternative of using different types of fibers to obtain the desired coloring. Karmaker teaches that the fibers that can be used include glass fibers and polyaramid fibers, column 6, lines 5-8, however, Karmaker does not show using para-aramid fibers. Bachmann teaches that para-aramid (Kevlar) fibers are equivalent reinforcing fibers to that of glass fibers and shows the fibers being used for a dental post. It would be further obvious to modify Karmaker to include para-aramid fibers as taught by Bachmann in order to better reinforce the post. As to claim 18, Karmaker teaches using a lighter color, the specific color used would have been obvious to the skilled artisan in order to improve aesthetics. As to claim 19, to match moisture absorbency would have been obvious to one of ordinary skill in the art in order

Art Unit: 3732

to resist the oral environment. As to claim 20, the relative thickness of the additional fiber material with respect to the component is an obvious matter of choice in the size of a known element to the skilled artisan.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karmaker et al (6827576) in view of Bachmann et al (6224377) as applied to claim 12 above and further in view of Kobayashi et al (5759029). The above combination does not show using aluminum oxide fibers. Kobayashi teaches that it is known in the dental arts that glass fibers and alumina fibers are equivalent reinforcing agents that can have a white color, column 1, lines 50-54. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of alumina fibers in order to make use of art known reinforcing fibers that can have the desired color.

Response to Arguments

Applicant's arguments filed June 17, 2011 have been fully considered but they are not persuasive. Applicant argues that Karmaker teaches the use of only a single fiber, and as such, does not meet the two different fibers being claimed. This argument is disagreed with because it is held that Karmaker does, at least, suggest using two different types of fibers as explained in the above rejection. It is noted that while the argued reasoning has changed, the rejection is made under the same references which applicant had for consideration.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EXAMINER whose telephone number is (571)272-6266. The examiner works a part time schedule and can normally be reached on Monday or Thursday from 8 AM to 4:30 PM, or on Friday from 8 AM to 12 PM.

If attempts to reach the examiner by telephone are unsuccessful, ***please contact the examiner's supervisor, SPE, at (571) 272-4964.*** The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If there are any inquiries that are not being addressed by first contacting the Examiner or the Supervisor, you may send an email inquiry to
TC3700_Workgroup_D_Inquiries@uspto.gov.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/John J Wilson/
Primary Examiner
Art Unit 3732**